FIG. 1

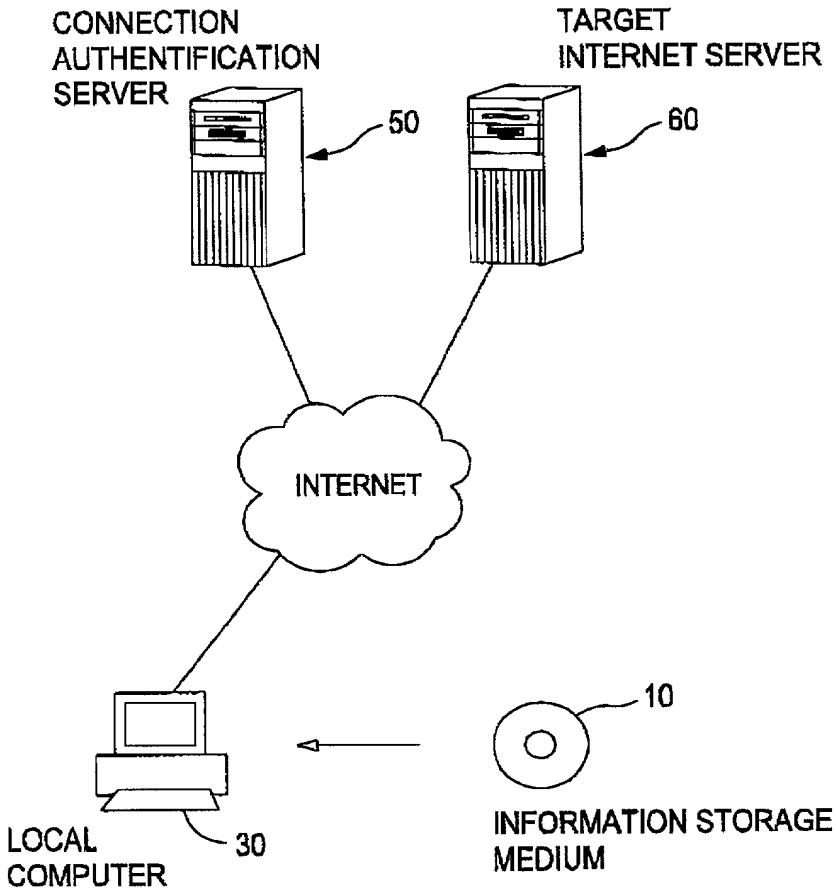

CONNECTION AUTHENTIFICATION SERVER
50
TARGET INTERNET SERVER
60
INTERNET
10
INFORMATION STORAGE MEDIUM
LOCAL COMPUTER
30

FIG. 2

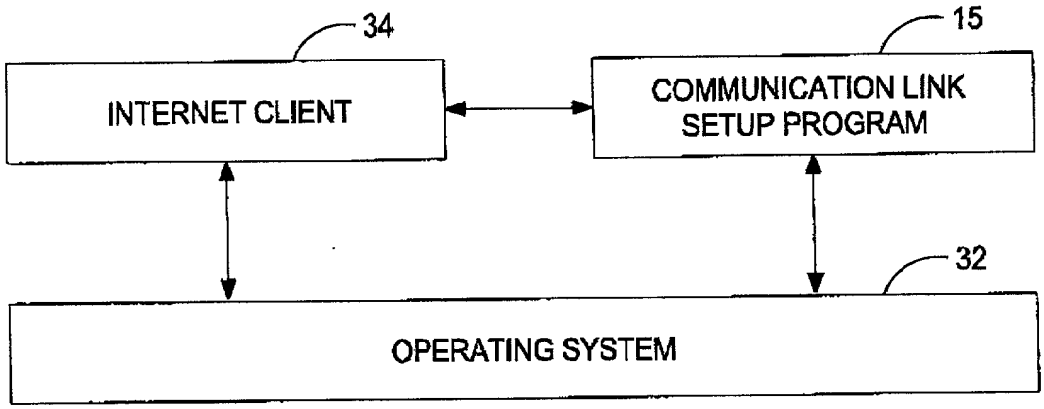

34
15
INTERNET CLIENT
COMMUNICATION LINK SETUP PROGRAM
32
OPERATING SYSTEM

FIG. 3

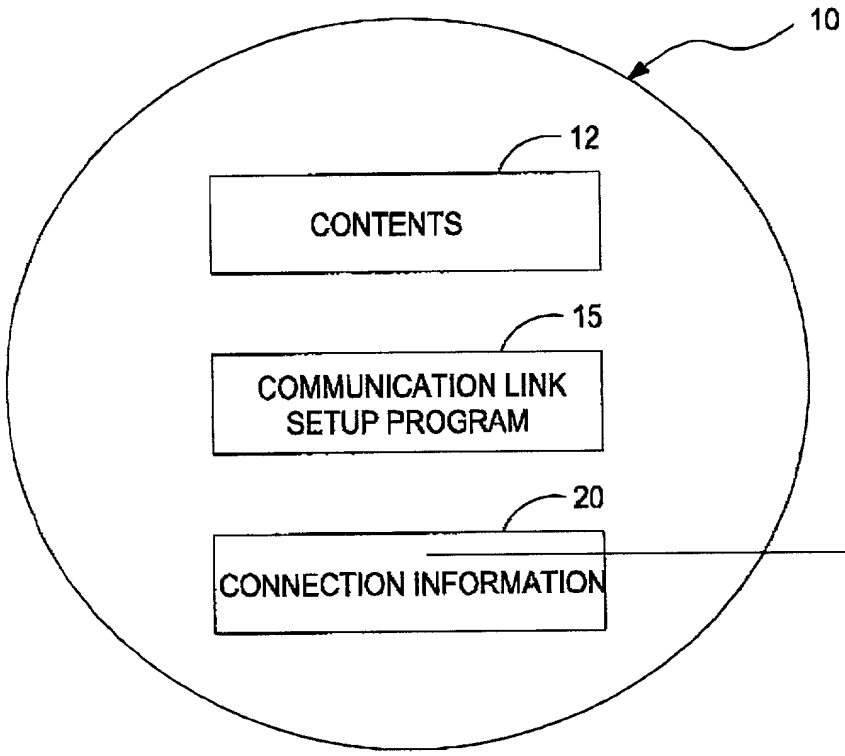

10
12
CONTENTS
15
COMMUNICATION LINK SETUP PROGRAM
20
CONNECTION INFORMATION

FIG. 4

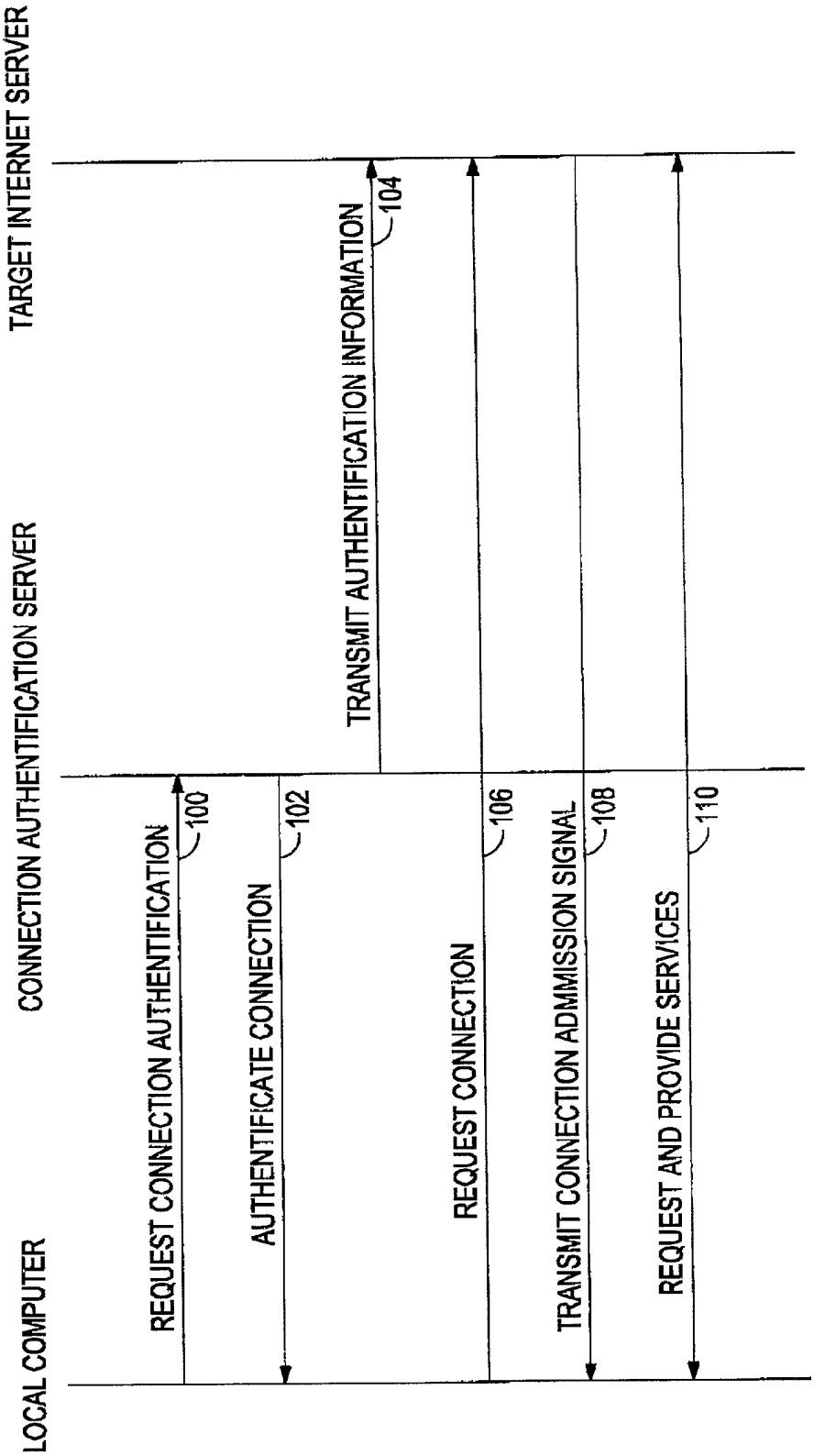

LOCAL COMPUTER
CONNECTION AUTHENTIFICATION SERVER
TARGET INTERNET SERVER
REQUEST CONNECTION AUTHENTIFICATION
100
AUTHENTIFICATE CONNECTION
102
TRANSMIT AUTHENTIFICATION INFORMATION
104
REQUEST CONNECTION
106
TRANSMIT CONNECTION ADMISSION SIGNAL
108
REQUEST AND PROVIDE SERVICES
110

FIG. 5

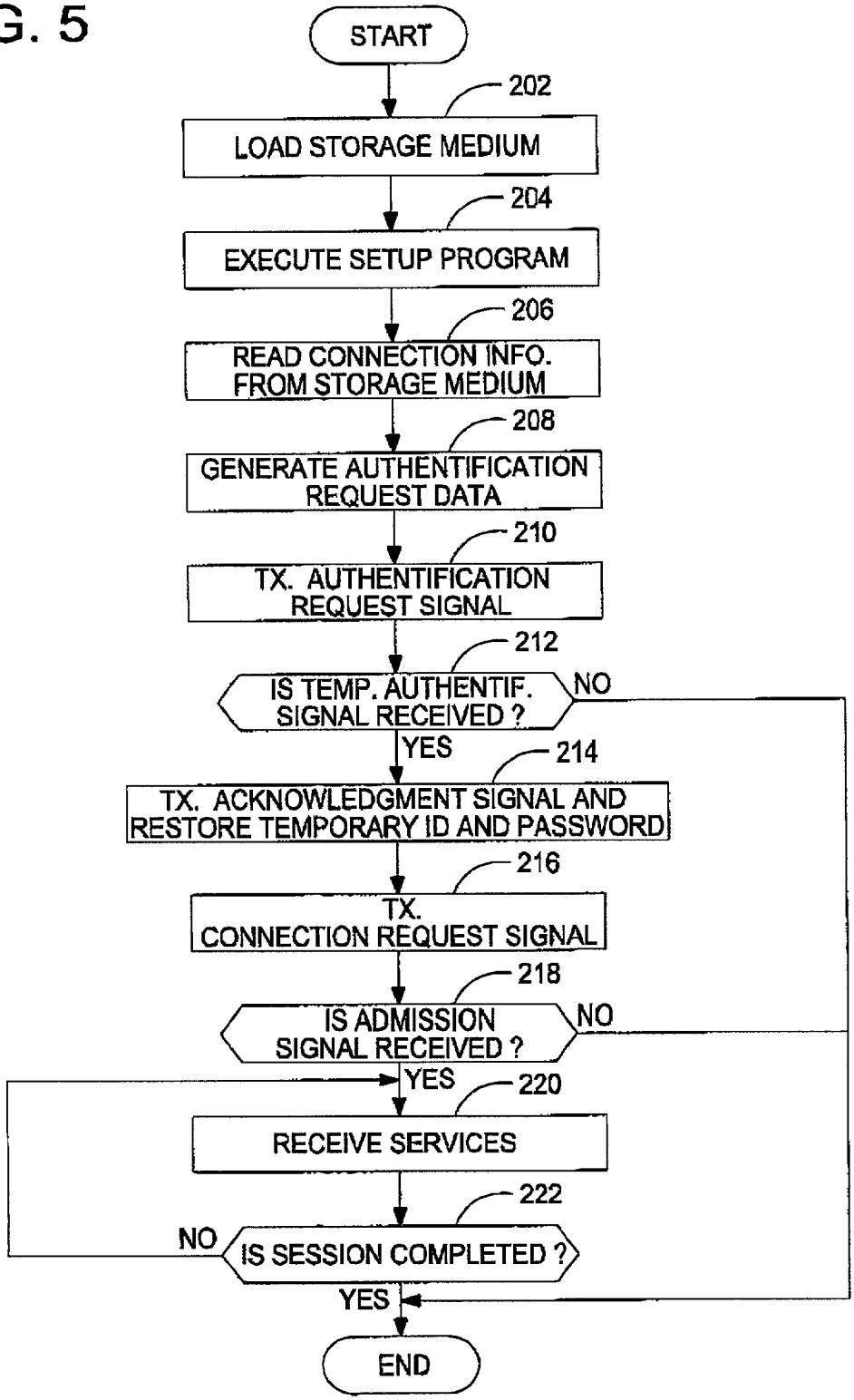

START
202
LOAD STORAGE MEDIUM
204
EXECUTE SETUP PROGRAM
206
READ CONNECTION INFO. FROM STORAGE MEDIUM
208
GENERATE AUTHENTIFICATION REQUEST DATA
210
TX. AUTHENTIFICATION REQUEST SIGNAL
212
IS TEMP. AUTHENTIF. SIGNAL RECEIVED ?
NO
YES
214
TX. ACKNOWLEDGMENT SIGNAL AND RESTORE TEMPORARY ID AND PASSWORD
216
TX. CONNECTION REQUEST SIGNAL
218
IS ADMISSION SIGNAL RECEIVED ?
NO
YES
220
RECEIVE SERVICES
222
NO
IS SESSION COMPLETED ?
YES
END

FIG. 6

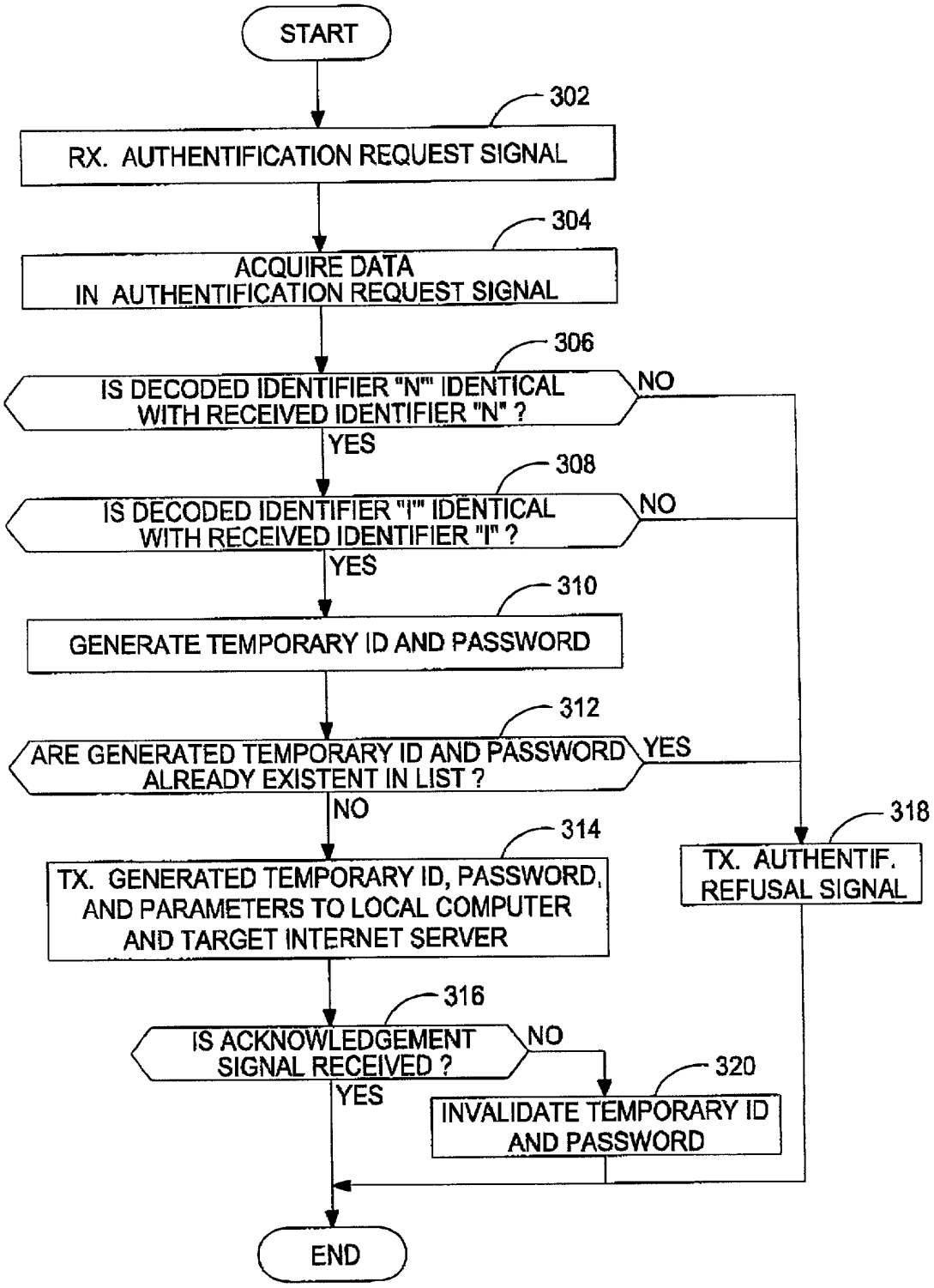

START
302
RX. AUTHENTIFICATION REQUEST SIGNAL
304
ACQUIRE DATA IN AUTHENTIFICATION REQUEST SIGNAL
306
IS DECODED IDENTIFIER "N'" IDENTICAL WITH RECEIVED IDENTIFIER "N" ?
NO
YES
308
IS DECODED IDENTIFIER "I'" IDENTICAL WITH RECEIVED IDENTIFIER "I" ?
NO
YES
310
GENERATE TEMPORARY ID AND PASSWORD
312
ARE GENERATED TEMPORARY ID AND PASSWORD ALREADY EXISTENT IN LIST ?
YES
NO
314
TX. GENERATED TEMPORARY ID, PASSWORD, AND PARAMETERS TO LOCAL COMPUTER AND TARGET INTERNET SERVER
318
TX. AUTHENTIF. REFUSAL SIGNAL
316
IS ACKNOWLEDGEMENT SIGNAL RECEIVED ?
NO
YES
320
INVALIDATE TEMPORARY ID AND PASSWORD
END

FIG. 7

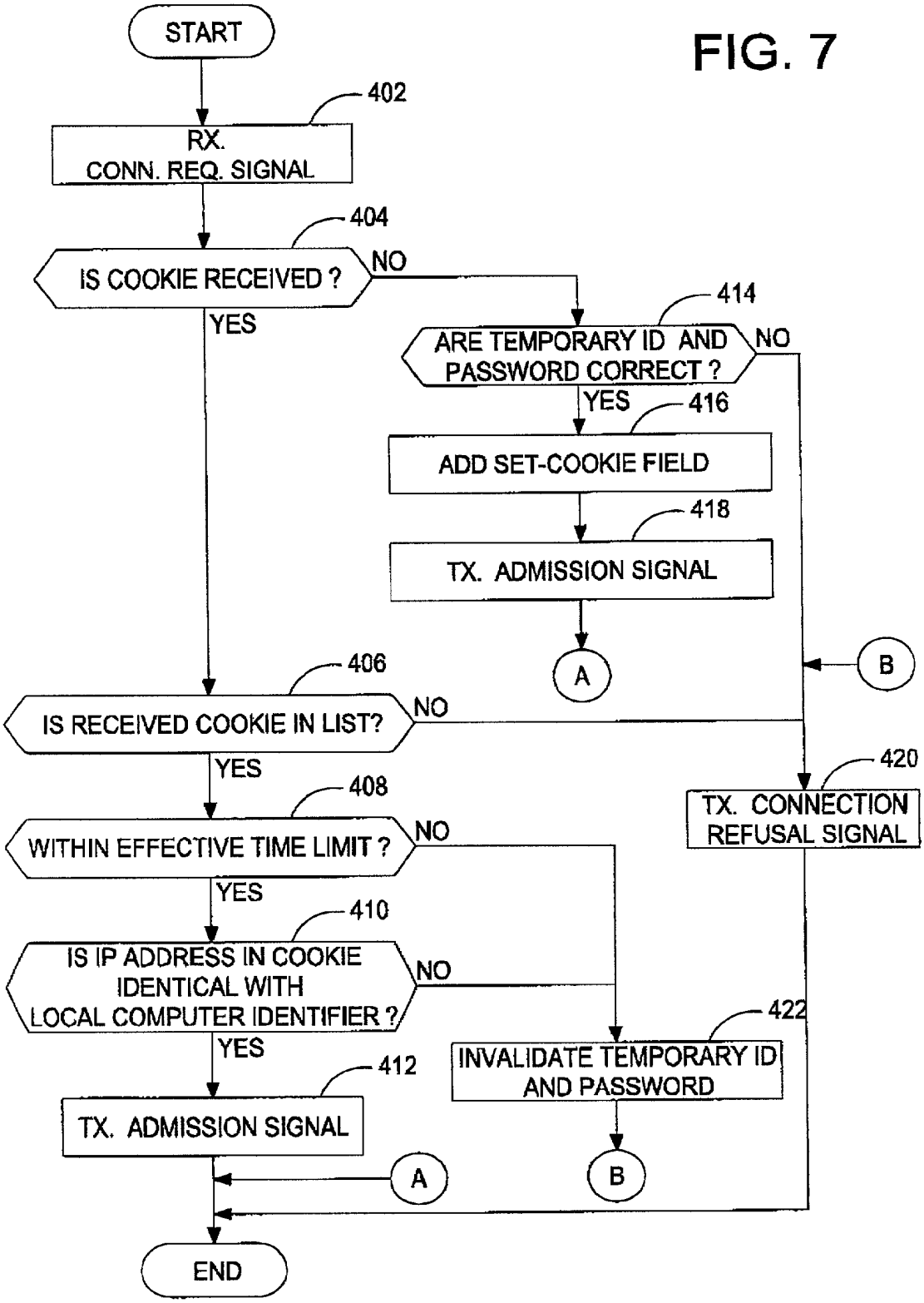
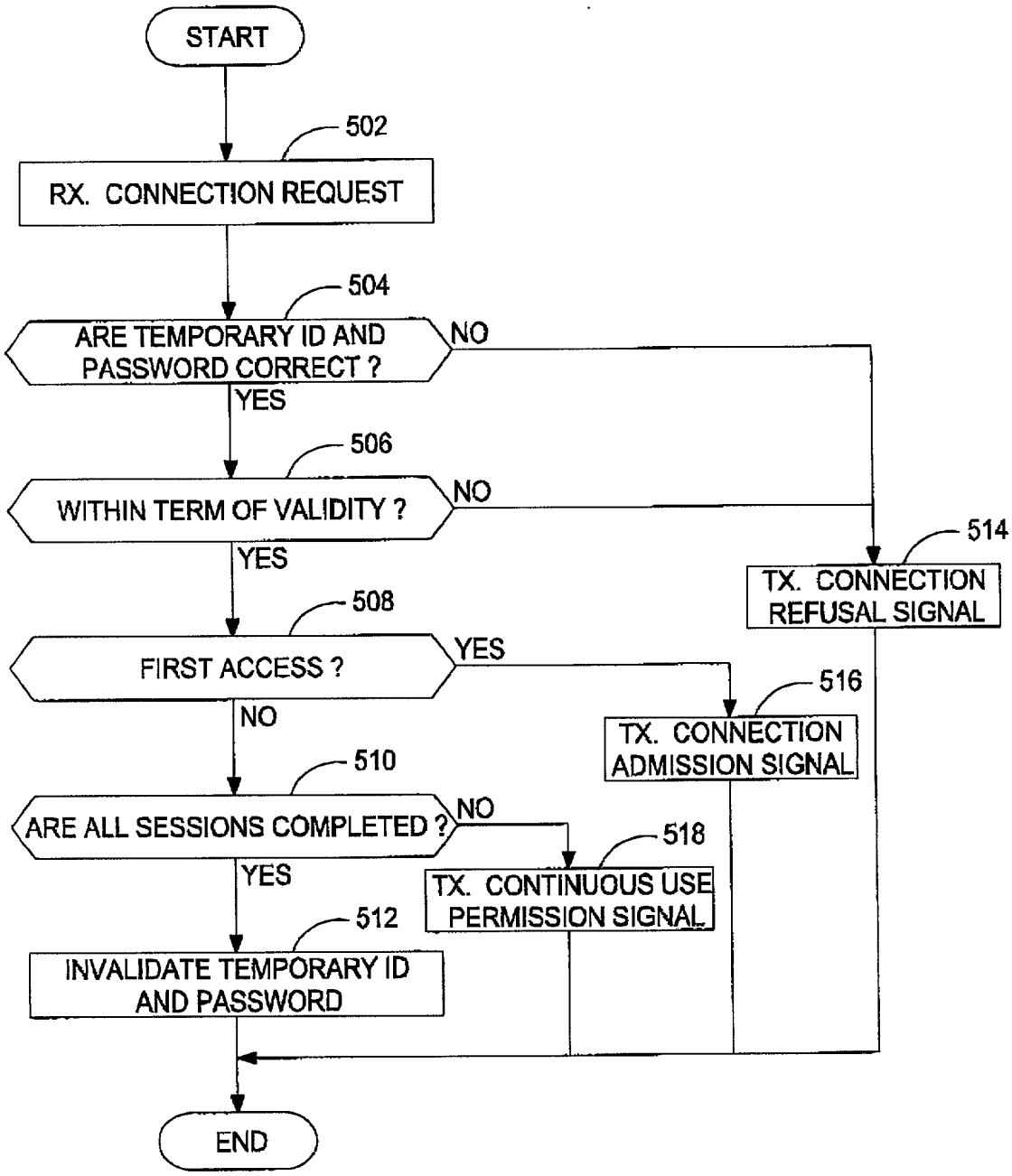

START
402
RX. CONN. REQ. SIGNAL
404
IS COOKIE RECEIVED ?
NO
YES
414
ARE TEMPORARY ID AND PASSWORD CORRECT ?
NO
YES
416
ADD SET-COOKIE FIELD
418
TX. ADMISSION SIGNAL
A
B
406
IS RECEIVED COOKIE IN LIST?
NO
YES
420
TX. CONNECTION REFUSAL SIGNAL
408
WITHIN EFFECTIVE TIME LIMIT ?
NO
YES
410
IS IP ADDRESS IN COOKIE IDENTICAL WITH LOCAL COMPUTER IDENTIFIER ?
NO
YES
422
INVALIDATE TEMPORARY ID AND PASSWORD
412
TX. ADMISSION SIGNAL
A
B
END

FIG. 8


START
502
RX. CONNECTION REQUEST
504
ARE TEMPORARY ID AND PASSWORD CORRECT ?
NO
YES
506
WITHIN TERM OF VALIDITY ?
NO
YES
514
TX. CONNECTION REFUSAL SIGNAL
508
FIRST ACCESS ?
YES
NO
516
TX. CONNECTION ADMISSION SIGNAL
510
ARE ALL SESSIONS COMPLETED ?
NO
YES
518
TX. CONTINUOUS USE PERMISSION SIGNAL
512
INVALIDATE TEMPORARY ID AND PASSWORD
END